

Export Soybeans

Soybean Grades and Grade Requirements

There are two classes of soybeans: Yellow soybeans and Mixed soybeans. There are no soybean subclasses. The class Yellow soybeans is the class most commonly exported by the U.S. market. Each class is divided into four U.S. numerical grades and U.S. Sample grade.

Special grades are provided to emphasize special qualities or conditions affecting the value of the soybeans. These special grades are a part of the grade designation but do not affect the numerical or Sample grade designation.

U.S. Standards for Soybeans

Grade	Minimum test weight per bushel (pounds)	Maximum limits of-				
		Damaged kernels		Foreign Material (percent)	Splits (percent)	Soybeans of other colors ¹ (percent)
		Heat-damaged kernels (percent)	Total damaged kernels (percent)			
U.S. No. 1	56.0	0.2	2.0	1.0	10.0	1.0
U.S. No. 2	54.0	0.5	3.0	2.0	20.0	2.0
U.S. No. 3	52.0	1.0	5.0	3.0	30.0	5.0
U.S. No. 4	49.0	3.0	8.0	5.0	40.0	10.0
U.S. Sample grade						

U.S. Sample grade shall be soybeans which:

- (a) Do not meet the requirements for U.S. Nos. 1, 2, 3, or 4; or
- (b) Contain 4 or more stones which have an aggregate weight in excess of 0.1 percent of the sample weight, 1 or more pieces of broken glass, 3 or more crotalaria seeds, 2 or more castor beans, 4 or more particles of an unknown foreign substance(s) or a commonly recognized harmful or toxic foreign substance(s), 10 or more rodent pellets, bird droppings, or an equivalent quantity of other animal filth, 11 or more pieces, in any combination, of animal filth, castor beans, crotalaria seeds, glass, stones, or unknown foreign substance. The weight of stones is not applicable for total other material; or
- (c) Have a musty, sour, or commercially objectionable foreign odor (except garlic odor); or
- (d) Are heating or otherwise of distinctly low quality.

¹ Does not apply to Mixed soybeans.

Soybeans

Definitions

Test weight (lb/bu) is pounds of grain per Winchester bushel determined by an approved device before the removal of foreign material.

Test weight (kg/hl) is the metric system equivalent to pounds per bushel. Kilograms per hectoliter are calculated by multiplying pounds per bushel by 1.287.

Moisture is the water content of grain as determined by an approved electronic moisture meter. The percentage of moisture in a sample does not affect the numerical grade.

Splits are soybeans with more than one-fourth of the bean removed and which are not damaged.

Damaged kernels are soybeans and pieces of soybeans which are badly ground-damaged, badly weather-damaged, diseased, frost-damaged, heat-damaged, insect-bored, mold-damaged, sprout damaged, stinkbug-stung, or otherwise materially damaged.

Heat-damaged kernels are soybeans and pieces of soybeans which are materially discolored and damaged by heat.

Foreign material is all matter, including soybeans and pieces of soybeans, that will pass readily through an 8/64-inch sieve and all matter other than soybeans remaining on the sieve after sieving.

Soybeans of other colors are soybeans which have green, black, brown, or bicolored seed coats. Before September 9, 1985, this factor was called “brown, black, and/or bicolored soybeans in yellow or green soybeans.”

Mixed soybeans is a combination of classes of soybeans which does not meet the minimum requirements of a the class Yellow soybeans.

Protein and oil percentages in soybeans are determined by an approved near infrared transmittance (NIRT) instrument calibrated to approved methods. Percent protein and oil is reported on a 13 percent moisture basis unless another basis is requested. The level of protein and oil in a sample does not affect the numerical grade.

Table 12. U.S. Soybean Exports: Number of lots and quantity exported by class and grade, 2001-2003

Grade	2001		2002		2003	
	Number of Lots	Metric Tons	Number of Lots	Metric Tons	Number of Lots	Metric Tons
U.S. No. 1	81	1,090,388	72	1,261,851	65	821,048
U.S. No. 2	1,018	25,197,627	1,007	24,667,871	922	26,011,236
U.S. No. 3	34	728,224	13	103,707	23	413,504
U.S. No. 4	—	—	2	13,474	1	20,552
U.S. Sample Grade	2	4,745	—	—	5	47,712
Not inspected	4	49,936	3	39,873	16	792,405
All lots	1,139	27,070,920	1,097	26,086,776	1,032	28,106,457

Not inspected = These lots were sold without grade designation.

Table 13. Summary of export Soybean quality, 2001-2003

Factor	Grade	Grade Limit	2001				2002				2003			
			No. of Lots	Avg.	Low	High	No. of Lots	Avg.	Low	High	No. of Lots	Avg.	Low	High
Test Weight (lb/bu)	U.S. No. 1	56.0	81	56.4	56.0	58.1	72	56.4	56.0	58.1	65	56.5	56.0	58.2
	U.S. No. 2	54.0	1,018	55.6	54.0	58.3	1,007	55.9	54.0	58.5	922	55.9	54.1	59.2
	U.S. No. 3	52.0	34	54.7	53.4	57.4	13	56.3	54.4	57.4	23	54.8	53.3	56.8
	U.S. No. 4	49.0	—	—	—	—	2	53.1	53.1	54.5	1	54.9	54.9	54.9
	U.S. Sample Grade	N/A	2	53.6	53.6	57.4	—	—	—	—	5	53.5	51.8	55.5
	All lots	N/A	1,135	55.6	53.4	58.3	1,094	55.9	53.1	58.5	1,016	55.9	51.8	59.2
Test Weight (kg/hl)	U.S. No. 1	N/A	81	72.7	72.1	74.8	72	72.6	72.1	74.8	65	72.7	72.1	74.9
	U.S. No. 2	N/A	1,018	71.6	69.5	75.1	1,007	72.0	69.6	75.3	922	71.9	69.6	76.2
	U.S. No. 3	N/A	34	70.4	68.8	73.9	13	72.4	70.0	73.8	23	70.6	68.6	73.1
	U.S. No. 4	N/A	—	—	—	—	2	68.4	68.3	70.2	1	70.7	70.7	70.7
	U.S. Sample Grade	N/A	2	69.0	68.9	73.9	—	—	—	—	5	68.8	66.7	71.5
	All lots	N/A	1,135	71.6	68.8	75.1	1,094	72.0	68.3	75.3	1,016	71.9	66.7	76.2
Moisture	U.S. No. 1	N/A	81	11.8	10.6	13.0	71	12.0	10.2	13.7	65	12.3	10.9	13.8
	U.S. No. 2	N/A	1,018	11.5	9.9	13.6	1,006	12.1	9.7	14.0	921	12.2	10.0	13.8
	U.S. No. 3	N/A	32	10.5	9.4	13.3	13	11.0	10.1	12.4	22	12.5	10.5	13.2
	U.S. No. 4	N/A	—	—	—	—	2	12.5	12.5	13.1	1	12.9	12.9	12.9
	U.S. Sample Grade	N/A	2	10.3	10.3	12.1	—	—	—	—	5	12.9	12.7	13.3
	All lots	N/A	1,135	11.5	9.4	13.6	1,092	12.1	9.7	14.0	1,014	12.2	10.0	13.8
Heat-damaged Kernels	U.S. No. 1	0.2	81	0.0	0.0	0.2	72	0.0	0.0	0.1	65	0.0	0.0	0.1
	U.S. No. 2	0.5	1,018	0.1	0.0	0.4	1,007	0.1	0.0	0.5	922	0.2	0.0	0.5
	U.S. No. 3	1.0	34	0.0	0.0	0.3	13	0.0	0.0	0.2	23	0.2	0.0	0.8
	U.S. No. 4	3.0	—	—	—	—	2	0.3	0.2	1.6	1	0.4	0.4	0.4
	U.S. Sample Grade	N/A	2	0.0	0.0	0.0	—	—	—	—	5	1.1	0.0	2.1
	All lots	N/A	1,135	0.1	0.0	0.4	1,094	0.1	0.0	1.6	1,016	0.2	0.0	2.1
Damaged Kernels (Total)	U.S. No. 1	2.0	81	0.7	0.0	1.6	72	0.7	0.0	1.6	65	0.6	0.0	1.5
	U.S. No. 2	3.0	1,018	1.4	0.0	3.0	1,007	1.4	0.0	3.0	922	1.5	0.0	3.0
	U.S. No. 3	5.0	34	0.9	0.2	4.1	13	0.7	0.1	1.9	23	2.6	0.1	4.0
	U.S. No. 4	8.0	—	—	—	—	2	5.7	3.5	5.8	1	4.1	4.1	4.1
	U.S. Sample Grade	N/A	2	0.1	0.1	0.6	—	—	—	—	5	9.8	1.4	17.1
	All lots	N/A	1,135	1.3	0.0	4.1	1,094	1.4	0.0	5.8	1,016	1.5	0.0	17.1

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Table 13. Summary of export Soybean quality, 2001-2003--Continued

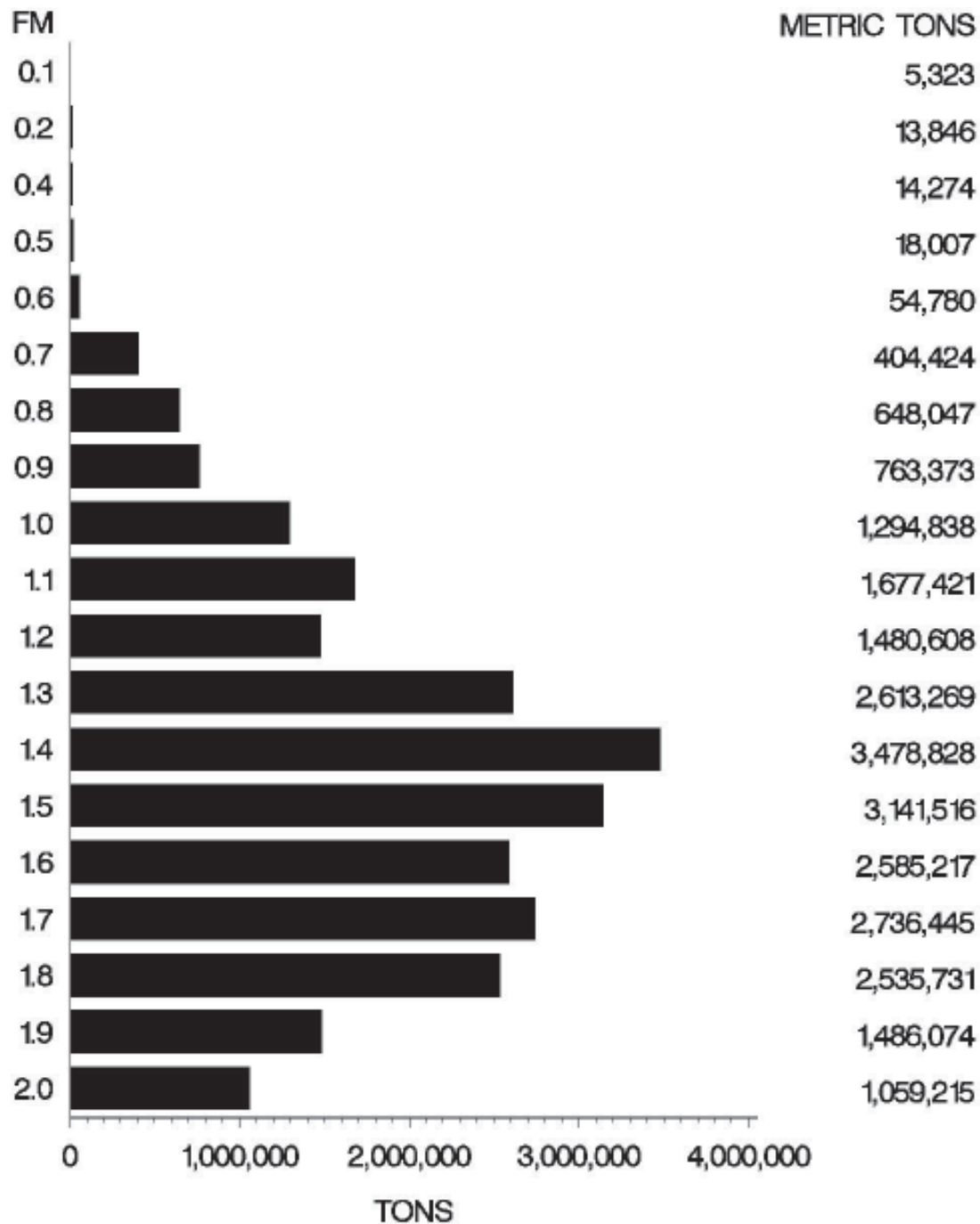
Factor	Grade	2001					2002				2003			
		Grade Limit	No. of Lots	Avg.	Low	High	No. of Lots	Avg.	Low	High	No. of Lots	Avg.	Low	High
Foreign Material	U.S. No. 1	1.0	81	0.8	0.0	1.0	72	0.8	0.0	1.0	65	0.8	0.0	1.0
	U.S. No. 2	2.0	1,018	1.7	0.0	2.0	1,007	1.5	0.0	2.0	922	1.5	0.1	2.0
	U.S. No. 3	3.0	34	2.2	0.4	3.0	13	2.0	0.6	2.8	23	1.8	1.0	2.9
	U.S. No. 4	5.0	--	--	--	--	2	1.0	1.0	1.0	1	2.0	2.0	2.0
	U.S. Sample Grade	N/A	2	2.6	0.5	2.6	--	--	--	--	5	2.0	1.5	2.5
	All lots	N/A	1,135	1.7	0.0	3.0	1,094	1.5	0.0	2.8	1,016	1.4	0.0	2.9
Splits	U.S. No. 1	10.0	81	6.4	0.0	10.0	72	7.1	0.2	9.9	65	6.2	0.2	9.8
	U.S. No. 2	20.0	1,018	11.1	0.0	20.0	1,007	8.4	0.0	19.7	922	8.0	0.0	19.8
	U.S. No. 3	30.0	34	20.0	2.7	29.6	13	9.5	3.4	14.0	23	7.5	3.8	23.2
	U.S. No. 4	40.0	--	--	--	--	2	6.1	3.5	6.2	1	6.1	6.1	6.1
	U.S. Sample Grade	N/A	2	40.3	3.1	40.7	--	--	--	--	5	7.4	2.8	9.8
	All lots	N/A	1,135	11.2	0.0	40.7	1,094	8.3	0.0	19.7	1,016	8.0	0.0	23.2
Soybeans of Other Colors	U.S. No. 1	1.0	81	0.1	0.0	0.5	72	0.1	0.0	0.9	65	0.5	0.0	8.0
	U.S. No. 2	2.0	1,018	0.1	0.0	1.0	1,007	0.1	0.0	1.8	922	0.4	0.0	11.0
	U.S. No. 3	5.0	34	0.1	0.0	4.1	13	0.2	0.0	3.5	23	0.2	0.0	3.0
	U.S. No. 4	10.0	--	--	--	--	2	0.2	0.0	0.2	1	0.1	0.1	0.1
	U.S. Sample Grade	N/A	2	0.0	0.0	0.0	--	--	--	--	5	0.1	0.0	0.1
	All lots	N/A	1,135	0.1	0.0	4.1	1,094	0.1	0.0	3.5	1,016	0.4	0.0	11.0
Protein (adjusted to 13% moisture)	U.S. No. 1	N/A	70	35.7	33.1	38.6	56	35.0	33.4	38.2	47	35.6	34.6	41.5
	U.S. No. 2	N/A	577	35.8	32.6	38.7	575	35.2	33.1	38.3	497	35.3	34.2	39.8
	U.S. No. 3	N/A	8	36.0	35.5	38.2	4	34.7	33.2	35.6	10	35.3	34.9	37.0
	U.S. No. 4	N/A	--	--	--	--	--	--	--	--	--	--	--	--
	U.S. Sample Grade	N/A	--	--	--	--	--	--	--	--	--	--	--	--
	All lots	N/A	655	35.8	32.6	38.7	635	35.2	33.1	38.3	554	35.3	34.2	41.5
Oil (adjusted to 13% moisture)	U.S. No. 1	N/A	70	18.3	15.5	19.6	56	18.6	14.5	19.7	47	18.7	15.1	19.7
	U.S. No. 2	N/A	580	18.5	17.0	20.0	576	18.8	14.6	20.0	494	18.9	15.2	20.3
	U.S. No. 3	N/A	8	18.5	16.8	19.0	4	18.7	18.6	19.3	10	19.8	17.9	20.5
	U.S. No. 4	N/A	--	--	--	--	--	--	--	--	--	--	--	--
	U.S. Sample Grade	N/A	--	--	--	--	--	--	--	--	--	--	--	--
	All lots	N/A	658	18.5	15.5	20.0	636	18.8	14.5	20.0	551	18.9	15.1	20.5

N/A = Does not apply.

-- = No lots reported in this category.

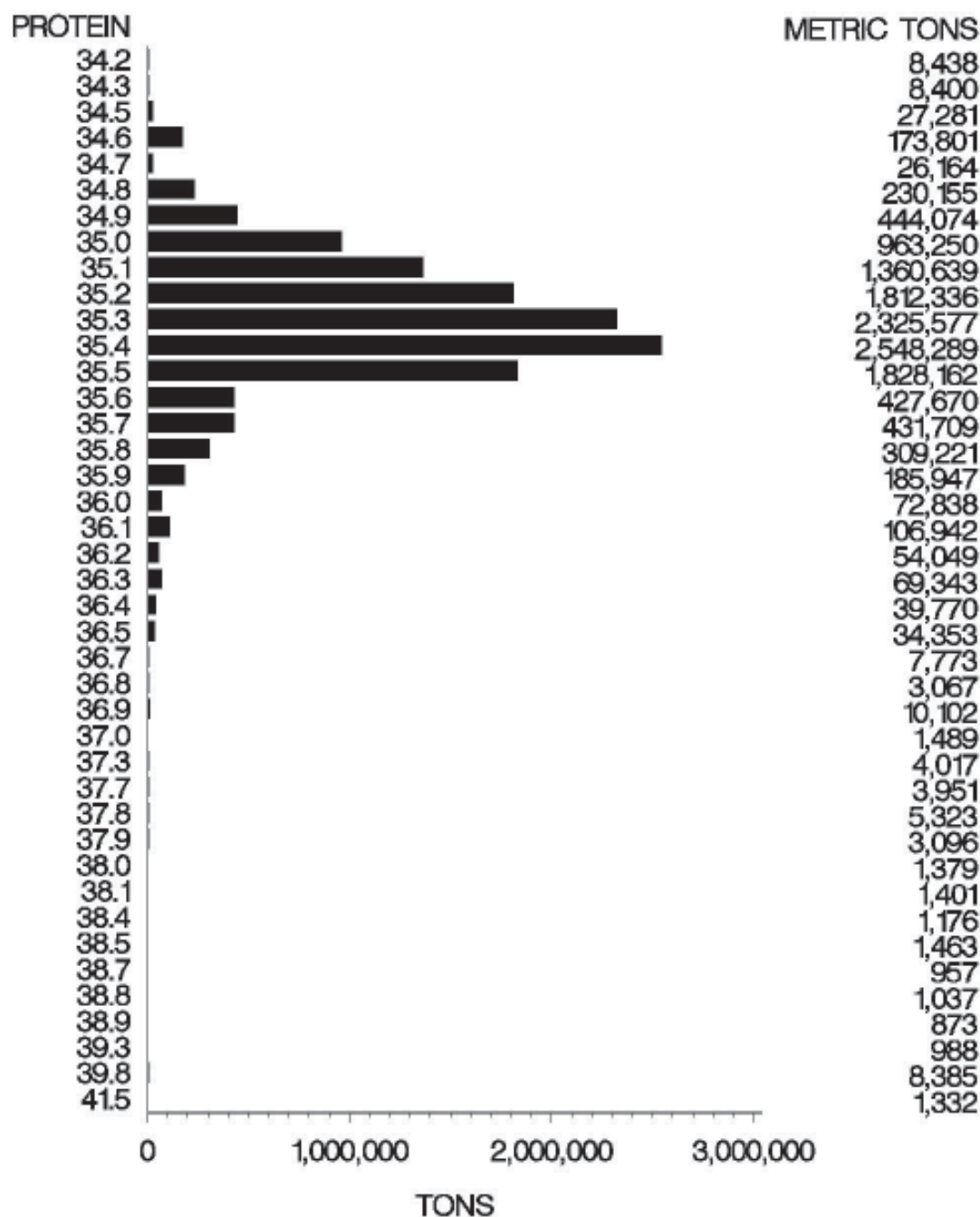
U.S. SOYBEANS EXPORTED, 2003

DISTRIBUTION FOR FM – GRADE 2



U.S. SOYBEANS EXPORTED, 2003

DISTRIBUTION FOR PROTEIN (13% M) – ALL GRADES



U.S. SOYBEANS EXPORTED, 2003 **DISTRIBUTION FOR OIL (13% M) – ALL GRADES**

